

## ABSTRACT

Disclosed is an active, isolated  $\beta$ -secretase enzyme in purified and recombinant  
5 form. This enzyme is implicated in the production of amyloid plaque components which  
accumulate in the brains of individuals afflicted with Alzheimer's disease. Recombinant  
cells that produce this enzyme either alone or in combination with some of its natural  
substrates (APP and APPsw) are also disclosed. These compositions are useful for use  
in methods of selecting compounds that modulate  $\beta$ -secretase. Inhibitors of  $\beta$ -secretase  
10 are implicated as therapeutics in the treatment of neurodegenerative diseases, such as  
Alzheimer's disease.